

Massengill Bridge  
Coal Creek Road over the Clinch River  
between River Miles 75 and 76  
Norris vicinity  
Anderson County  
Tennessee

HAER No. TN-2

HAER  
TENN  
1 - NOR. V,  
1 -

PHOTOGRAPHS

HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record  
National Park Service  
Department of the Interior  
Atlanta, Georgia 30303

MASSENGILL BRIDGE

TN-2

HAER  
TENN  
1-NOR.V.  
1-

Location: Coal Creek Road over the Clinch River between River Miles 75 and 76, Norris vicinity, Anderson County, Tennessee.

UTM:

Dates of Construction: 1916, 1930s

Builder: Virginia Bridge and Iron Company of Tennessee, Roanoke, Virginia

Owner: Highway Supervisor, Anderson County Courthouse

Use: No longer in use, scheduled for demolition.

Significance: According to the bridge plaque, the Massengill Bridge was erected in 1916 by the Virginia Bridge and Iron Company of Roanoke, Virginia. It was one of four bridges constructed through a bond issue by Anderson County in order to replace four ferries.

The bridge is 482 feet in length, the curb-to-curb width is 15 feet, and the out-to-out width is 18.1 feet. The bridge contains four steel truss spans and one girder span. These spans are 1) Pratt Through, seven panel, pin connected truss, 2) Pratt Through, seven panel, pin connected truss, 3) Camelback Through, nine-panel, pin connected truss, 4) Pratt Pony, four panel, pin connected truss, and 5) steel "I" beam girder span, vertical clearance for spans one and two is 19.1 feet and for span three is 16 feet rising to 22.5 feet in the center of the truss. The height of the panels of the fourth truss, a Pony truss, is 7.6 feet. The deck is wooden. The substructure is composed of two concrete abutments and four concrete piers. The only known major repairs to the bridge occurred in the 1930s, when the TVA extensively repaired the substructure.

The Massengill Bridge derives its primary significance from its engineering merits. Although the trusses are not unique, each is a typical example of representative truss types popular in the early 1900s. With three distinct types of truss designs in one bridge, collectively,

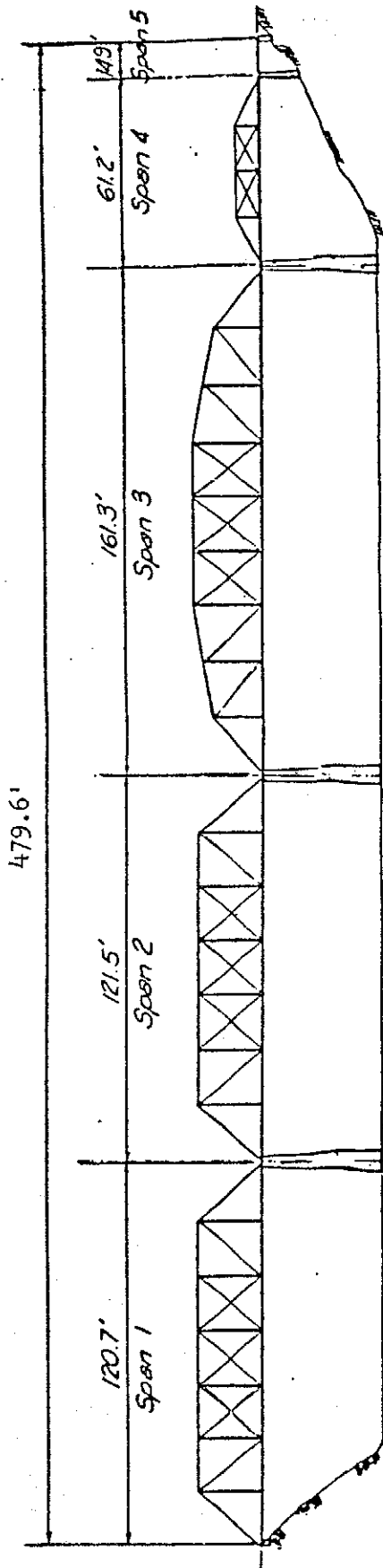
the bridge acquires additional significance by presenting an overview of early twentieth century truss design.

The Virginia Bridge and Iron Company erected numerous bridges in the southeast in the 1900-1930 period and operated several branch offices. The largest branch office was in Memphis, Tennessee, and it is assumed that the Massengill Bridge was built by this branch office.

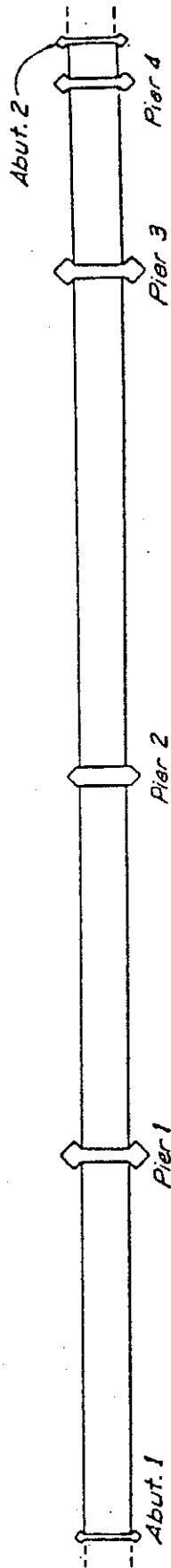
(Jack, George, History of Roanoke County. 1912. Available in the Virginia Room, Roanoke City Library; Roanoke Times, 27 January 1933; Roanoke World News, 29 January 1934; Shoofman, Charles. Anderson County Road Supervisor, Clinton, Tennessee. Interview, 13 July 1981.)

Transmitted by:

Jean P. Yearby, 1984, from data compiled by Martha Carver, historian for the Tennessee Department of Transportation.



ELEVATION

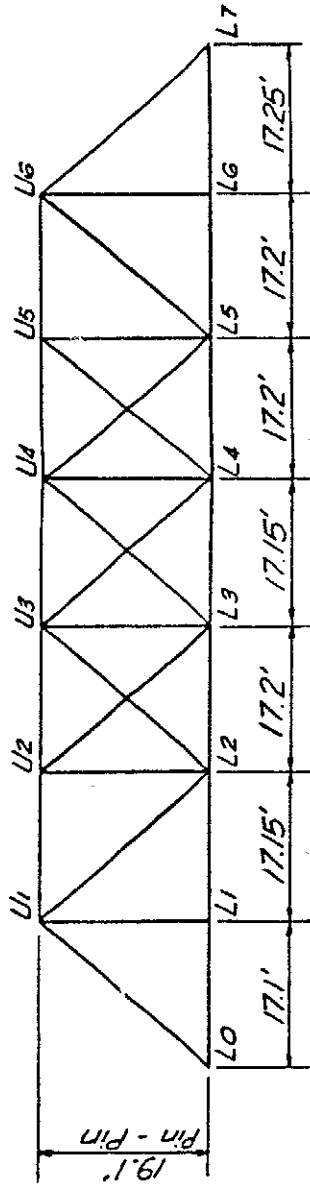


PLAN

Bridge built in 1916 by:  
 Virginia Bridge & Iron Co. of Tenn.  
 Roanoke, Va.

BRIDGE LAYOUT  
 Br. No. 01- A088 -353

ANDERSON COUNTY



SPAN 1 & SPAN 2

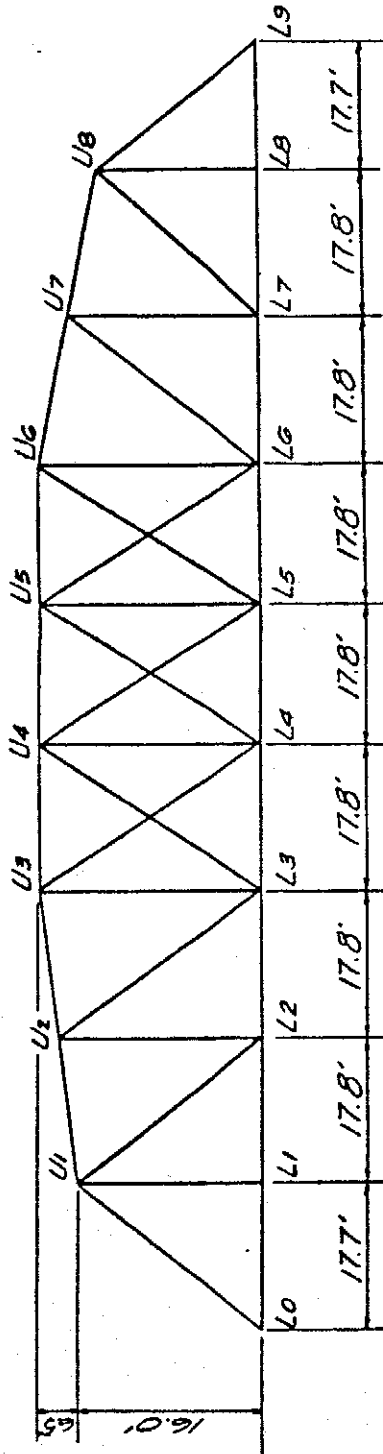
Pins	3 1/4" φ
L0 U1, U1 U2	See Detail
L0 L1; L1 L2; L5 L6; L6 L7	2 - 2 1/2" x 5/8" bar
L2 L3; L3 L4; L4 L5	2 - 3 1/2" x 3/4" bar
U1 L2; U6 L5	2 - 2 1/2" x 5/8" bar
U3 L2; U4 L5	1 - 1/8" φ rod
U2 L3; U5 L4	2 - 2" x 5/8" bar
U3 L4; U4 L3	1 - 1/8" φ rod
U1 L1; U6 L6	See Detail
U2 L2; U5 L5	See Detail

SPAN 1 & 2

Br. No. 01- A088 -353

ANDERSON COUNTY

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SPAN 3

Pins	3 1/2" φ
U4, L5, L4, U5	1 - 1" φ rod
L3, U4, U5, L6	1 - 1" x 1" bar
U3, L4, U6, L5	2 - 2 1/2" x 5/8" bars
U6, L3, U7, L6	2 - 2 1/2" x 3/4" bars
U7, L2, U8, L7	2 - 3 1/8" x 3/4" bars
L4, L5	4 - 3" x 3/4" bars
L5, L6, L3, L4	5 - 2 1/2" x 3/4" bars
L6, L7, L2, L3	4 - 2 1/2" x 3/4" bars
L7, L8, L1, L2	2 - 3 1/2" x 3/4" bars
L8, L9, L0, L1	2 - 3 1/2" x 3/4" bars

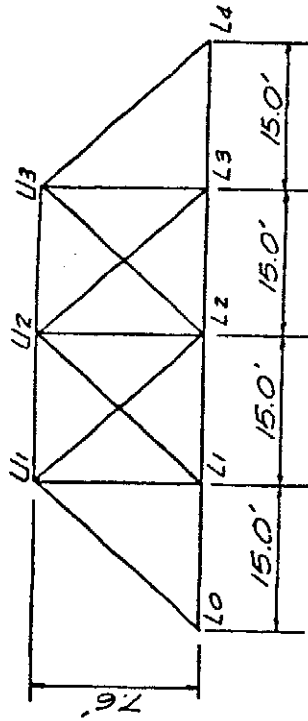
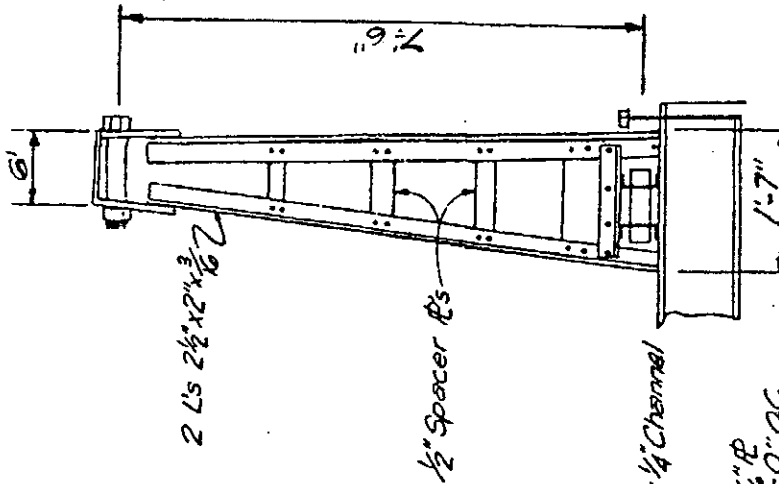
SPAN 3

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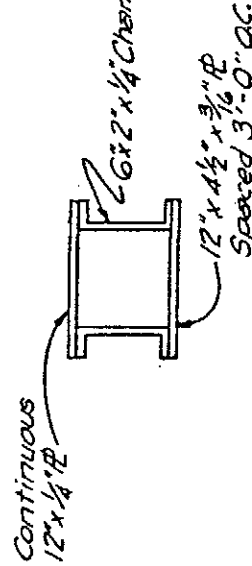
ANDERSON COUNTY

See Details for topchord  
and vertical members

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SPAN 4



Pins	2 1/4" $\phi$
Lo - L1	2 - 2 1/2" x 3/16" bars
L1 - L2	2 - 2 1/2" x 3/16" bars
L2 - L3	2 - 2 1/2" x 3/16" bars
L3 - L4	2 - 2 1/2" x 3/16" bars
Diagonal U1 - L2	2 - 2" x 1/2" bars
U2 - L1	1 - 3/8" $\phi$ rod
U2 - L3	1 - 3/8" $\phi$ rod
U3 - L2	2 - 2" x 1/2" bars

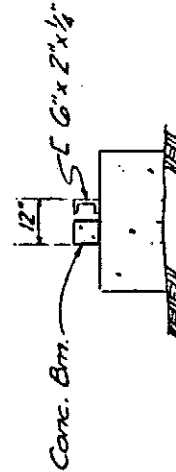
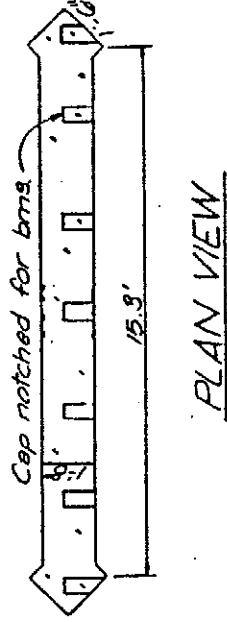
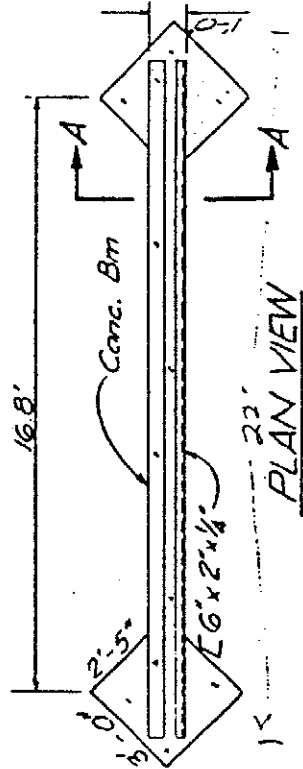
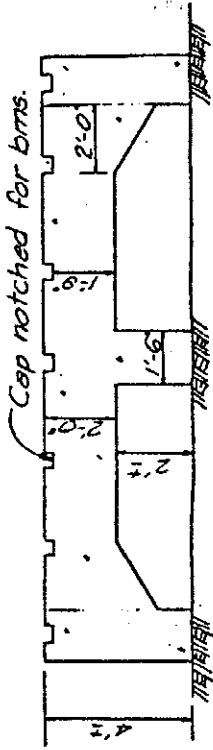
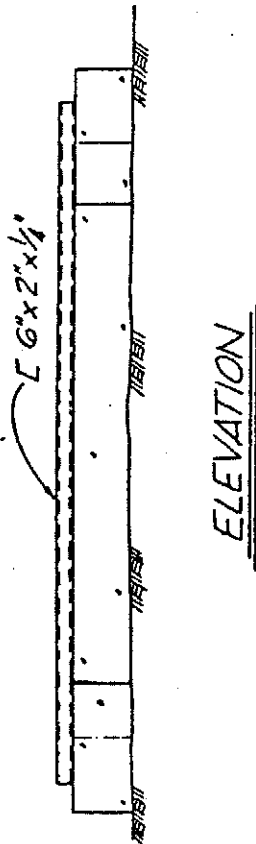
U1 L1 U2 L2 U3 L3

SPAN 4

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ANDERSON COUNTY

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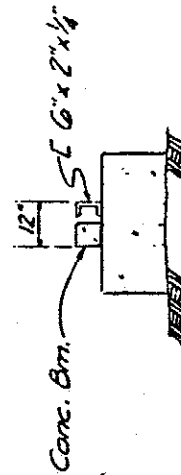
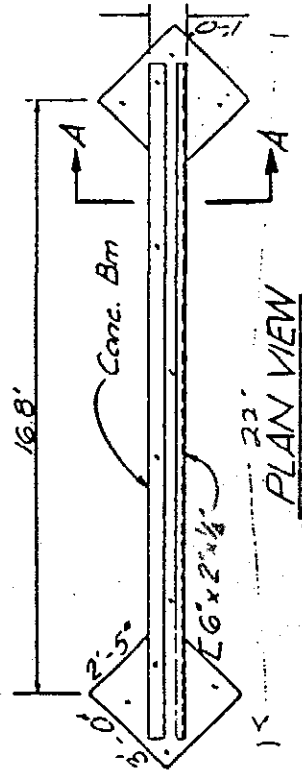
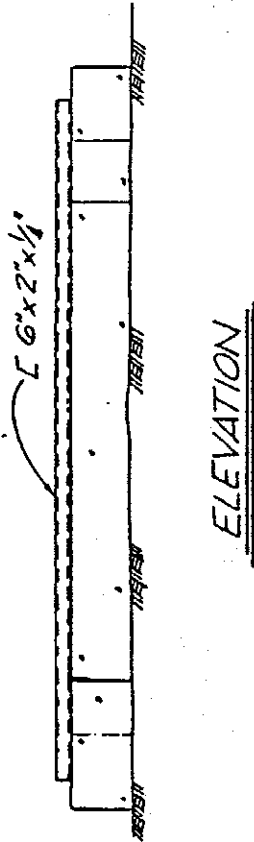


ABUTMENT No. 2

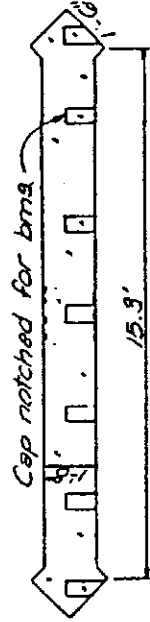
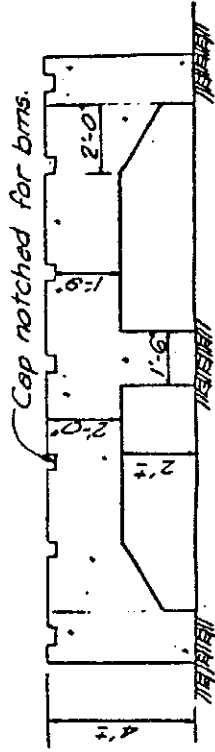
ABUTMENT DETAIL  
 Br. No. 01- A088 -3.53

ANDERSON COUNTY

ABUTMENT No. 1



ABUTMENT No. 1



ABUTMENT No. 2

ABUTMENT DETAIL

B. No. 01- 1088 - 3.53

ANDERSON COUNTY

